

[Translation done.]

a soil-resistant-finish method according to any one of claims 1 to 6.

[Claim 7] A substrate which substrates are one sort chosen from leather, synthetic leather, textiles, and knitting, or two sorts or more of complexes, and is characterized by giving leather, synthetic leather, textiles, and knitting, or two sorts or more of complexes, and is characterized by giving

soil-resistant-finish method according to any one of claims 1 to 5 that a processing method is a method which combined one sort chosen from the impregnating method, a spray method, and a coating method, or two sorts of more.

[Claim 8] A soil-resistant-finish method according to any one of claims 1 to 5 that a processing method is a method which paper, wallpaper, a nonwoven fabric, artificial leather, synthetic leather, textiles, and knitting, or two sorts of more of complexes.

[Claim 5] A soil-resistant-finish method according to any one of claims 1 to 4 that substrates are one sort chosen from paper, wallpaper, a nonwoven fabric, artificial leather, synthetic leather, textiles, and knitting, or two sorts of more of complexes.

[Claim 4] At the amount of fluoride in a processing substrate measured by the alizarin complexone method is 0.05 to 2.0 % of the weight to substrate weight. And a soil-resistant-finish method according to any one of claims 1 to 3 that the amount of fluorine atoms which is carrying out orientation to the surface analyzed by X-ray diffraction is 10 to 30 % of the weight to substrate weight.

[Claim 3] A soil-resistant-finish method according to claim 1 or 2 that coating weight to substrate weight is 1 to 30 % of the weight.

[Claim 2] A soil-resistant-finish method according to claim 1 or 2 that coating weight to substrate weight to antiseptic emulsion in the first-step processing is 1 to 30 % of the weight, and coating weight to antiseptic emulsion in the second-step processing is 1 to 30 % of the weight.

[Claim 1] A soil-resistant-finish method according to claim 1 or 2 that coating weight to substrate weight is 1 to 30 % of the weight, and coating weight to substrate weight to antiseptic emulsion in the first-step processing is 1 to 30 % of the weight.

[Claim 1] A soil-resistant-finish method according to claim 1 or 2 that coating weight to substrate weight to antiseptic emulsion in the first-step processing is 1 to 30 % of the weight, and coating weight to substrate weight to antiseptic emulsion in the second-step processing is 1 to 30 % of the weight.

[Claim 1] A soil-resistant-finish method according to claim 1 or 2 that coating weight to substrate weight to antiseptic emulsion in the first-step processing is 1 to 30 % of the weight, and coating weight to substrate weight to antiseptic emulsion in the second-step processing is 1 to 30 % of the weight.

[Claim 1] A soil-resistant-finish method according to claim 1 or 2 that coating weight to substrate weight to antiseptic emulsion in the first-step processing is 1 to 30 % of the weight, and coating weight to substrate weight to antiseptic emulsion in the second-step processing is 1 to 30 % of the weight.

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Detailed Description

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NOTICES

[...] about the mechanism of this antioupling property again, if it guesses from the viewpoint of the ionicity of a fluororesin emulsion, it is thoughtful that the anionic form fluororesin could control imprecipitated or applied to the subsurface in the 1st step is in the state where it has not adhered to a partial subsurface [although it is the whole subsurface in the 2nd step, it will stick to the portion to which the anion resin processed in the 1st step has not adhered, i.e., the subsurface portion of non-electrification, selectively. Therefore, when the 2nd-step processing is completed, it will be in the state where the fluoro-resin adhered to the whole subsurface uniformly, and it will be

[0006] Although the substrate as used in the field of this invention can say one sort chosen from paper, wallpaper, a nonwoven fabric, artificial leather, synthetic leather, textiles, knitted fabric, etc., or two sorts or more of synthetic paper which laminated synthetic resins, such as polyethylene and polypropylene, as a base substrate used by this invention, for example; Polyamide, Textiles and knitting which consists of synthetic fibers and base fiber, improves the strength, durability used for [for the purpose of these], it is not limited to these. The paper, mixed-use textiles, such as textiles, such as polyester and polyacrylic; Wool, Textiles and knitting which consists of these of natural fibers, such as silk, cotton, and hemp, such as knitting; acetate and rayon, etc. which consist of semi-synthetic fibers, such as cellulose, such as polyester and a polyacrylic; Polyester, Textiles and knitting which consists of these mentioned, although " " spray processing, or artificial leather and synthetic leather that calling preferable, although " " spray coating is also included) was carried out, and formed the porous layer are mentioned.

[0005] This invention is as the 1st-step processing to a substrate Nameley, the homopolymer of a fluorinated alkyl groups contain allyl group of a fluorinated alkyl groups contain allyl group of a fluorinated monomer (*α*). And/or, the copolymer of a fluorinated alkyl group of a fluorinated monomer (*α*) and fluorine containing unsaturated monomer (*β*). And/or, make the anionic form fluororesin emulsion which uses the polycondensation adduct of fluorinated alkyl group containing alcohol (*C*) as an essential ingredient to a substrate, and a coat is made to form. The soil-resistor-flush method making a coat from fluororesin emulsion adhere to a substrate.

[0006] This invention provides the substrate chosen from one sort chosen from the paper, the wallpaper, the nonwoven fabric, artificial leather, the synthetic leather, textiles, and knitting giving the aforementioned soil-resistor-flush method, or two sorts of more of complexes.

[0007] Embodiment of the invention Subsequently, in carrying out this invention, a required matter is described below.

earlier with the specific processing method shown below, as a result of preparing examined soil resistance to salt and water and oil repellency, and this soil-resistant-finish method can be provided, and came to complete this finish method which can give the outstanding performance, such as abrasion resistance, washing resistance,

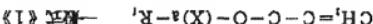
[Formula 2]

[0016]

which it is a partial fluorination alkyl group, and the oxygen atom intervened into straight chain shape, branched suffigent, R₁ is H, CH₃, Cl, or F, and X is a divalent connecting group, for example, is a connecting group [1] state, or a main chain. To for example, everything but -(CH₂)_n which -(OCF₂C₂)₂CF(CF₃)₂ etc. may be among a general formula <>1>< The perfluoroalkyl group of the carbon numbers 1-20. Or the thing to

O

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R₁

[Formula 1]

acrylic, fluoro acrylic, and chlorination acrylic shall be named acrylic (meta) generally, namely [0014] acrylate, fluorine spray processing, or spray processing (coating processing) and it are mean. Methacrylate, processing solvent used for the aqueous dispersed resin used at the time of the first step and 2nd step impregnating various solvents for revealing the performance made into the purpose besides an emulsifier, and water and an additive for processing treatment. All the compounds which result in the

<>1<> in this invention, with the blend liquid for processing treatment. All the following general and an ease of conclusion, and the fluorination (meta) acrylic specifically expressed with a following treatment, polymersization reaction nature, comparability over other presentations in the blend liquid for processing treatment, and an ease of conclusion, and the fluorination (meta) acrylic specifically expressed with a following general and an ease of conclusion, and the fluorination (meta) acrylic ester group and its relative group is suitable from points, such as invention. The thing containing an acrylic ester group and its relative group is used by this invention in particular. As a fluorinated alkyl group content ethylene unsaturated monomer (A) used by this be no restriction in particular. A fluorinated alkyl group content ethylene unsaturated monomer (A) used by this molecule as a fluorinated alkyl group content ethylene unsaturated monomer (A) used by this invention, there will be no restriction in particular. A fluorinated alkyl group and a fluorinated alkyl group in a

<>1<> it is a compound which has an ethylene nature unsaturated group and a fluorinated alkyl group in a form fluororesin emulsion.

[0015] Details are explained below about the anionic form fluororesin emulsion used by this invention, and a caution

and oil repellency, is formed.

thought that the cost which reveals the characteristics, such as firm endurance, antifouling property, and water

-CH₂CH(C₂H₅)₂- 連繩基 [2]

- $(\text{CH}_2)_n\text{SO}_4^-$ 連繩基 [3]

- $(\text{CH}_3)_n\text{NCO}^-$ 連繩基 [4]

-CH₂- 連繩基 [5]

-CH₂- 連繩基 [6]

CH₂CH₃ 連繩基 [7]

[0017] However, n in connecting group [1]-[4] is an integer of 1-10, and R₂ is an alkyl group of H or the carbon numbers 1-6.)

R₂

CH₂ 連繩基 [6]

CH₂CH₃ 連繩基 [6]

CH₂ 連繩基 [7]

CH₂ 連繩基 [7]

[Formula 4]

[0020] of 0021]

CH₂

-C-

|

CH₂

CH₂CH₃

|

CH₂CH₃

|

CH₂

[Formula 3]

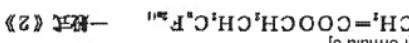
0018] further, [0019]

CH₂ 連繩基 [6]

[0024] The thing like the following is mentioned as an example of the fluorinated alkyl group content (meta) acrylate used by this invention. For example, [0025]



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[Formula 5]

[0023] formula <2>. It is,

[0022] Being by **, a is 0 or 1. The compound expressed with], and the compound which has two or more perfluorooxy] groups in the molecule like a general formula <2> [m is an integer of 1-14 among a general

[0022] formula <2>, it is].

CH₃

|

-C-

|

CF₃ 連續基 [10]

|

-C-

|

CF₃ 連續基 [9]

|

-C-

|

CF₃ 連續基 [8]

H

|

-C-

|

CF₃ 連續基 [8]

化合物 a 1 : $\text{CH}_3=\text{CHCOOCH}_2\text{CH}_2\text{C}_6\text{F}_5$

化合物 a 2 : $\text{CH}_3=\text{CHCOOCCH}_2\text{CH}_2\text{C}_6\text{F}_5$

化合物 a 3 : $\text{CH}_3=\text{CHCOOCH}_2\text{CH}_2\text{C}_6\text{F}_5$

化合物 a 4 : $\text{CH}_3=\text{CHCOOCCH}_2\text{CH}_2\text{C}_6\text{F}_5$

化合物 a 5 : $\text{CH}_3=\text{CHCOOCH}_2\text{CH}_2\text{C}_6\text{F}_5$

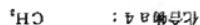
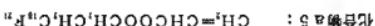
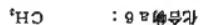
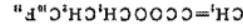
化合物 a 6 : $\text{CH}_3=\text{CHCOOCCH}_2\text{CH}_2\text{C}_6\text{F}_5$

化合物 a 7 : $\text{CH}_3=\text{CHCOOCH}_2\text{CH}_2\text{C}_6\text{F}_5$

化合物 a 8 : $\text{CH}_3=\text{CHCOOCCH}_2\text{CH}_2\text{C}_6\text{F}_5$

化合物 a 9 : $\text{CH}_3=\text{CHCOOCH}_2\text{CH}_2\text{C}_6\text{F}_5$

[0026] Furtner, [0027]
[Formula 7]



[Formula 8]

[0028]Furthier, [0029]

化合物 a 1.8 : $\text{CH}_3=\text{CHCOOCH}_2\text{C}_6\text{F}_5$



化合物 a 1.7 : CH_3

化合物 a 1.6 : $\text{CH}_3=\text{CHCOOOC}_2\text{C}_6\text{F}_5$

化合物 a 1.5 : $\text{CH}_3=\text{CHCOOCH}_2\text{C}_6\text{F}_5$



化合物 a 1.4 : CH_3



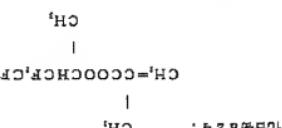
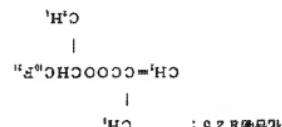
化合物 a 1.3 : CH_3

化合物 a 1.2 : CH_3

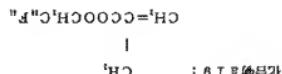
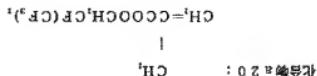
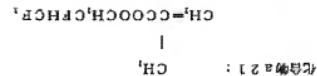
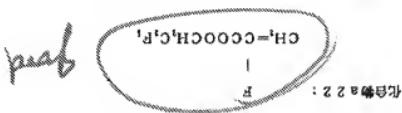
化合物 a 1.1 : CH_3

化合物 a 1.0 : F

[Formula 9]
[0030]



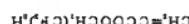
化合物 23 : $\text{CH}_3\text{C(=O)OC(CH}_3)_2\text{CR(CF}_3)_2$



[Formula 10]
[0031]

化合物 a 3 6 : $\text{CH}_3=\text{CHCOOCH}_3(\text{CF}_3)_2\text{H}$

化合物 a 3 5 : $\text{CH}_3=\text{CHCOOCH}_3(\text{CF}_3)_2\text{H}$



化合物 a 3 4 : $\text{CH}_3=\text{COOCCH}_3(\text{CF}_3)_2\text{H}$

化合物 a 3 3 : $\text{CH}_3=\text{CHCOOCH}_3(\text{CF}_3)_2\text{H}$



化合物 a 3 2 : $\text{CH}_3=\text{COOCCH}_3(\text{CF}_3)_2\text{H}$

化合物 a 3 1 : $\text{CH}_3=\text{CHCOOCH}_3(\text{CF}_3)_2\text{H}$



化合物 a 3 0 : $\text{CH}_3=\text{COOC}(\text{CF}_3)_2\text{H}$

化合物 a 2 9 : $\text{CH}_3=\text{CHCOOCH}_3\text{CF}_3$

化合物 a 2 8 : $\text{CH}_3=\text{CHCOOCH}_3(\text{CF}_3)_2\text{H}$



化合物 a 2 7 : $\text{CH}_3=\text{COOCCH}_3(\text{CF}_3)_2\text{H}$

化合物 a 2 6 : $\text{CH}_3=\text{CHCOOCH}_3(\text{CF}_3)_2\text{CF}(\text{CF}_3)_2\text{H}$

[Formula 11]
[0032]

化合物 a 4 4 : $\text{CH}_3=\text{CHCOOC}_2\text{C}_2\text{F}_5$



化合物 a 4 3 : CF_3



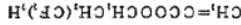
CF_3

CH_3



CH_3

CH_3



化合物 a 4 1 : CH_3



化合物 a 4 0 : $\text{CH}_3=\text{CHCOOC}_2\text{C}_2\text{F}_5$



CH_3



CH_3

CH_3

化合物 a 3 8 : $\text{CH}_3=\text{CHCOOC}_2\text{C}_2\text{F}_5$

化合物 a 3 7 : $\text{CH}_3=\text{CHCOOC}_2\text{C}_2\text{F}_5$

[Formula 12]
[0033]



化合物 a 5 1 :



化合物 a 5 0 :



化合物 a 4 9 :



化合物 a 4 8 :



化合物 a 4 7 :



化合物 a 4 6 :



化合物 a 4 5 :

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化合物 a 5-2 : $\text{CH}_3=\text{CHCOOC}(\text{CH}_3)(\text{C}_2\text{H}_5)\text{C}_2\text{F}_5$

化合物 a 5-3 : $\text{CH}_3=\text{CHCOOCCH}_2\text{CH}_2\text{NSO}_2\text{C}_2\text{F}_5$

化合物 a 5-4 : $\text{CH}_3=\text{CHCOOCCH}_2\text{CH}_2\text{NSO}_2\text{C}_2\text{F}_5$

化合物 a 5-5 : $\text{CH}_3=\text{CHCOOCCH}_2\text{CH}_2\text{C}_2\text{H}_5$

化合物 a 5-6 : $\text{CH}_3=\text{C}-\text{COOCCH}_2\text{CH}_2\text{C}_2\text{F}_5$

(0034) Of course, this invention is not what is limited in any way by the above-mentioned example. A fluorinated alkyl group containing ethyleneic unsaturated monomer (A) used by this invention is introduced simultaneously.

(0035) The fluorinated alkyl group containing ethyleneic unsaturated monomer (A) may use only one kind, and may use two or more kinds.

(0036) The carbon number of the fluorinated alkyl group in the fluorinated alkyl group containing ethyleneic unsaturated monomer (A) used by this invention, the range of 6-12 is more preferred.

(0037) The anionic form and cation form fluororesin emulsion which are used by this invention. The homopolymer produced by making one sort of the above-mentioned fluorinated alkyl group containing ethyleneic unsaturated monomer (A) or two sorts of more polymers independently may be used, and copolymerization of said monomer (A) and the fluorinated alkyl chosen according to the purpose in consideration of said unsaturated monomer (A), and the aqueous dispersibility of an emulsion, with the free radical for processing treatment. In this invention, with the blend liquid which is composed of the first step and second step imregnating processing, spray processing, or spreading processing and it are meant.

(0038) A fluorinated alkyl group containing ethyleneic unsaturated monomer (B) used by this invention, there is no restriction in particular, and it is a compound of publicly known public use, anything can be used. As an example of this monomer (B), for example Ethylene, propylene, Butadiene, Isoprene, Styrene, nuclear substituted styrene, diene, acrylic acid, acrylamide, Acrylic acid, acrylamide, chloroprene, VCM/VCG, a vinylidene chloride, Fatty acid vinyl, such as vinylpyridine, N-vinyl pyrrolidone, vinylisulfonic acid, and vinyl acetate, As a derivative of carboxylic acid [of monovalence, such as alpha, beta-ethylene unsaturated carboxylic acid, i.e.,

[0054] As an alternative to form fluororesin emulsion used by this invention, Although the homopolymer of the above-mentioned fluorinated alkyl group content ethylenic unsaturated monomer (A) and/or the copolymer of a styrene and fluorinated alkyl group content ethylenic unsaturated monomer (B) can be used as above-mentioned, in addition, the polycondensation adduct of the fluorinated alkyl group content alcohol (C) used by this invention, [0055]With the polycondensation adduct of the fluorinated alkyl group content alcohol (C) used by this invention, contains the fluorinated alkyl group and/or fluorination alkeneyl group of 3-2D, and a carbon number have a monovalence of polyhydrolic alcohol in which the monovalence of polyhydrolic alcohol in which a carbon number which are 4-2D is preferred, and they are 1000 or more carbon number of ester compounds (poly), [0053]Monovalence of polycondensation adduct in which a carbon number does not contain the fluorinated alkyl group with the carboxylic acid (poly) in which a carbon number does not contain the fluorinated alkyl group with the carboxylic acid (poly) in which a carbon number does not contain the fluorinated alkyl group of 3-3D, And the weight average molecular weight obtained by a polycondensation of hydrocarbon system skeleton of 3-3D, And the weight average molecular weight obtained by a polycondensation of hydrocarbon system skeleton of 3-3D, And a carbon number have a

[0047] Chain transfer agents, such as benzyl mercapto, 2-mercaptoethanol, ethylthiohydroxymethylpropanoic acid, and also coupling group containing thiol compounds, such as gamma-mercapto propylmethoxy silane, can be used.

[0055] illuminated alkyl group content alcohol (C) and fluorinated alkyl carboxylic acid can use selected and (poly) carboxylic acid containing the fluorinated allyl group of polyly known below use. As in example of the raw material which constitutes this polycarbonate addition, the compound shown below is mentioned, for example.

The RIREN oxide which does not contain alkyl groups is a polymer containing methacrylate groups of the general formula $-CH_2-C(=O)-CH_2-$ and monomer containing the imidazolidine alkyl group and imidazolidine ring system groups of the general formula $-CH_2-C(=O)-CH_2-$. The weight average molecular weight of the polymer obtained by polycondensation of the two compounds of the above-mentioned structures is 27,000.

[0066] It is preferred to use together an anionic form fluororesin emulsion and aqueous dispersed resin, to make it adhere to a substrate in the first step processing in this invention, and to make a coat form. In the anafflooding coat application.

property, the anionic fluororesin emulsion used by this invention and a cation form fluororesin emulsion contain a fluorine atom in 10 to 60% of the weight of the range more preferably 5% of the weight or more during a

100625Inch designed well, the special miniaturized of a fluorine system and a silicone series, are already in series, and the notion which seems to be polyimide polyimide polyimide polyimide polyimide polyimide.

emulsifiers, such as alkyl polyglucoside, specific thiomate salt; Polyoxyethylene alkyl sulfonate, alkane sulfonate sodium salt. Anionic system alkylbenzenene sulfonate, alkyl sulfosuccinate, Naphthalene sulfonate, alkane sulfonate alkyl sulfonate, alkyl sulfonate salt; Polyoxyethylene alkyl sulfonate, Cation system

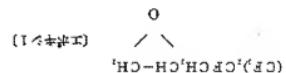
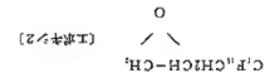
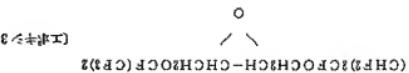
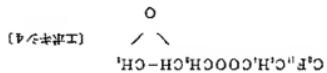
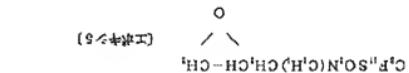
which fluoresce in emulsion about a nonionic emulsifier.

must be used to form the fluororesin emulsion or another emulsion of the second step. There is, as a certain form, respectively, it must be used in consideration of the toxicity by this invention.

public use, since the fluorescem emulsions used for the 1st step and the 2nd step are an anionic form and a compound with an emulsifier. Although the emulsifier used in the case can use the compound of publicly known

and it does not matter whether it is an ester compound (poly), a extreme compound (poly), and two or more sorts of mixtures of the epoxy compounds.

[0062] The polycondensation adduct of the fluorinated alkyl glycidyl group content alcohol (C) used by this invention An ester compound (poly), Or a methane compound (poly) and an epoxy compound independently may be different.



homatation process of the 1st step, since the binder role of an anionic form fluororesin emulsion and a subsrate is played and also the improvement in binding nature with a subsrate and waleproomness, and adhesion resistance are provided, it becomes an effective means to use aqueousity distributed resin together.

[0067] As aqueousity distributed resin used by this invention, although each resin of publicly known public use can use it. For example, polyurethane resin, polylivinyl chloride copolymer, Polyacrylic ester resin, styrene/butadiene copolymer, The polymer emulsion of ethylene/vinyl acetate copolymer, vinyl acetate/ester copolymer, and styrene/butadiene copolymer, acrylic ester copolymer, an acrylonitrile butadiene copolymer, Polyacrylic ester resin, styrene/butadiene copolymer, an acrylic acid ester butadiene butadiene / methyl methacrylate copolymer, an acrylonitrile butadiene copolymer, a methacrylate copolymer, a methacrylate/acrylic acid ester copolymer, and styrene/vinyl acetate copolymer, a methacrylate copolymer, vinyl acetate/ester copolymer, and styrene/butadiene ester copolymer, and styrene/vinyl acetate copolymer, a methacrylate copolymer, vinyl acetate/ester copolymer, This range, the outstanding antifouling property and durability can be revealed.

[0068] In the case of an anionic form fluororesin emulsion and a subsrate weight ratio of 1 / 100 - 30 / 100 preferably, and is the range of $T / 100 - 15 / 100$ more preferably, if an anionic form fluororesin emulsion in the 1st-step processing concerning this invention, in a solid control weight ratio, it is the range of 1 / 100 to 10 / 100. 0.05 to 10.0 % of the weight of the anionic form fluororesin emulsion in the 1st step, and the 2nd step must be determined and antifouling property, and processing, in order to maintain performance and to reveal a cost metric, the treatment bath concentration of any of the first step and the 2nd step is converted into solid control, its endurance and durability properties, and processing, in order to maintain performance and to reveal a cost metric, determining bath concentration of the balance of the cost generated by military requirement levels, such as 0.05 to 10.0 % of the weight is preferred, and is 0.2 to 5 % of the weight is more preferable.

[0069] In the soil-resistant-finish method of this invention, the coating weight to the subsrate weight is 1 to 30 % of the weight of the subsrate weight of the 1st step concerning this invention and the 2nd step must be weight preferable.

[0070] The treatment bath concentration of the 1st step concerning this invention and the 2nd step must be determined bath concentration of the balance of the cost generated by military requirement levels, such as 0.05 to 10.0 % of the weight is preferred, and is 0.2 to 5 % of the weight is more preferable.

[0071] The concentration of the whole processing subsrate in this invention, Dottie Al Husson (made by, Inc. Dottie Chemical Laboratory) who is a colormetry reagent of a fluorescent atom is used, and it is the alizarin complexone method (oxygenen) [bun and] Meant the fluorescent element concentration (% of the fluorescent atom concentration of the surface). The fluorescent atom concentration quantified by the analytical method which carries out the colorimetry of the fluorescent acid which detected out.

[0072] The fluorine element concentration of the whole processing subsrate in this invention, Dottie Al Husson (made by, Inc. Dottie Chemical Laboratory) who is a colormetry reagent of a fluorescent atom is used, and it is the alizarin complexone method (oxygenen) [bun and] Meant the fluorescent element concentration (% of the fluorescent atom concentration of the surface). The fluorescent atom concentration quantified by the analytical method which carries out the colorimetry of the fluorescent acid which detected out.

[0073] In this invention, the publicly known method usually used can be used as a method of making a fluororesin emulsion which contains a subsrate after coagulation in particular, after desiccation and curing can be performed.

[0074] Although the drying condition does not carry out limitation in particular, after making the aqueousity distributed resin which plays a role of the anionic form fluororesin emulsion of the 1st step, and a binder to a subsrate. Usually, it is preferably required, 80 °C, drying time until the processed resin is not eluted to the action form fluororesin emulsion of the 2nd step, until a processing.

[0075] Aqueousity distributed resin adheres to the anionic form fluororesin emulsion of the 1st step, making the aqueousity distributed resin adhere to the anionic form fluororesin emulsion of the 2nd step, and a binder to a subsrate. Usually, it is preferably required, 80 °C, drying time until the processed resin is not eluted to the action form fluororesin emulsion of the 2nd step, until a processing.

(0084) As one of the modes of other of this invention, a substrate is applied to each of above-menionned soil - 1 atm%.
(0085) As one of the modes of other of this invention, the total amount of fluorine in the processing substrate measured by the zirconium complexone method is 0.5% to 2.0% of the weight to substrate weight. And the amount of fluorine atoms which is carrying out oftenration to the surface measured by X linear-light electronic - spectroscopic-analys method is 0.1% to 0.5% of the weight.
(0086) As one of the modes of other of this invention, the total amount of fluorine in the processing substrate measured by the zirconium complexone method is 0.5% to 2.0% of the weight to substrate weight. And the amount of fluorine atoms which is carrying out oftenration to the surface measured by X linear-light electronic - spectroscopic-analys method is 0.1% to 0.5% of the weight.
(0087) As one of the modes of other of this invention, the coating weight to the substrate weight of the anionic form and making coal forming is stirred in the first-step processing.
(0088) As one of the modes of other of this invention, the above-menionned soil-resistant-finsh method of using fluororesin emulsion in the first-step processing is to 30% of the weight. And the coating weight to the substrate weight of the carboxylic fluororesin in the second step processing is applied to each of above-menionned soil-resistant-finsh methods which are 1 to 10 % of the weight.
(0089) As one of the modes of other of this invention, the total amount of fluorine in the processing substrate measured by the zirconium complexone method is 0.5% to 2.0% of the weight to substrate weight. And the amount of fluorine atoms which is carrying out oftenration to the surface measured by X linear-light electronic - spectroscopic-analys method is 0.1% to 0.5% of the weight.
(0090) As one of the modes of other of this invention, the total amount of fluorine in the processing substrate measured by the zirconium complexone method is 0.5% to 2.0% of the weight to substrate weight. And the amount of fluorine atoms which is carrying out oftenration to the surface measured by X linear-light electronic - spectroscopic-analys method is 0.1% to 0.5% of the weight.
(0091) As one of the modes of other of this invention, the total amount of fluorine in the processing substrate measured by the zirconium complexone method is 0.5% to 2.0% of the weight to substrate weight. And the amount of fluorine atoms which is carrying out oftenration to the surface measured by X linear-light electronic - spectroscopic-analys method is 0.1% to 0.5% of the weight.
(0092) As one of the modes of other of this invention, a substrate is applied to each of above-menionned soil - spray method, and a coating method, or two sorts or more.

(0093) As one of the modes of other of this invention, it is one sort chosen from paper, wallpaper, a nonwoven fabric, artificial leather, synthetic leather, and knitting, or two sorts or more of complexes, and the substrate which gave each of above-menionned soil-resistant-finsh methods is started.

(0094) As one of the modes of other of this invention, the various characteristics of the sample were measured by the following methods. This invention is not limited only to these examples.
(Example) Hereafter, an example and a comparative example explain this invention much more concretely. Unless a notice has % especially in below, it is a weight reference altogether. The various characteristics of the sample were measured by the following methods. This invention is not limited only to these examples.
water-repellent highest-class number uses a dropper for a processing base material surface, respectively, and gradually to each solution. The water repellence of the processing substrate was quantitatively evaluated with ratio as a standard testing liquid, and "series", was given as a name which expresses water-repellent strength ratio of A (at 90°) As shown in Table 1, there was mixed with opposite alcohol at the rate of a constant 0.0085% of A (at 90°) As the invention is not limited only to these examples.

[JP,2003-154307,A [DETAILED DESCRIPTION]

[009] About the above-mentioned processing substance (X_1), evaluation of the water and oil repellency before and behind friction durability test and anti-slip property was carried out. Friction durability test used the self-made wear cloth based on JIS L-1042 using the abrasion tester of Gakushin-type, and carried out 3000 wear by 25G of load. It evaluated by using Q-A test as an oil-repellent index, vegetable oil, and soy sauce as an index of oil repellency. The result indicated that the friction durability was 3. The result was indicated to Table 3.

[010] The fluorine concentration of the processing substance was collectively shown in Table 3. The concentration of the fluorine element of the whole processing substance among the numerical values indicated in front, Dofte Al Hussain (made by, Inc. Dofte Chemical Laboratory) who is a colormetry reagent of a fluorine atom is used, and it is the alizarin complexone method (in oxygen). [Unit and] Mean the fluorine element concentration (%) of the weight quantified by the analytical method which removes out the colormetry of the fluorine acid same'd out decomposition generation, and the fluorine atom concentration of the surface. The fluorine atom concentration (atm%) obtained using the AXS-HS type by the XPS analysis method (\times -ray photoelectron spectroscopy, \times -ray photoelectron spectroscopy) is mean.

[011] <Example 2> In the first step impregnating processing in Example 1, it is an anionic form fluoro-resein water and oil repellent agent Aquia frame. It adds to the 5-% of the weight solution of TE-5A. The processing substance (X_2) which gave the antifouling coat of the endurance of this invention like Example 1 was obtained except using together the 30-% of the weight blend liquid of an acrylic emulsion (the Diamippon ink & Chemicals, Inc. make, BONKOTO AN-185, 40 % of the weight of solid content, Tg30 °C) as a binder.

x. After whipping marks remain and it is dramatically consolidaus clearly.
 0088-1 <Example 1> - as the 1st-step processing - an anionic form fluororesin emulsion water and oil repellent agent (the Dainippon Ink & Chemicals, Inc. make); Aquafane TE-5A and the 5-% of the weight solution of 20 % of the weight of solid content were runing using the up roll after impregnating a filter paper (TYFE2 by Toyo Roshi Kisha, Ltd., basis weight 130 g/m², and hot air dryimg was carried out for 5 minutes at 100 °C, this processing treatment finishing filter paper of the 1st step - as the 2nd-step processing - a cation form fluororesin emulsion water and oil repellent agent (the Dainippon Ink & Chemicals, Inc. make). After being impregnated and whipping water and oil repellent agent (the Dainippon Ink & Chemicals, Inc. make), the DfKU guard F-90 and the 5-% of the weight solution of 20 % of the weight of solid content will a up roll, hot air dryimg was performed for 5 minutes at 160 °C, and the processing substance (x1) which gave the antifouling

stale of the drop after 30 seconds of passage.

[0087] Practice of a stain test! Using the coffee and vegetable oil which held temperature at 50 °C, respectively, and deep *** soy sauce a fixed quantity of drops of each containerization liquid were dropped, it wiped off lightly with tissue paper 5 minutes afterwards, and the degree of silverfish to the processing substrate side of each standard was observed visually. When displaying the degree of silverfish to the following judging standard was followed and it was graded. The judging standard after contactinization liquid wiping is as follows.

O : marks do not remain at all after wiping.
** After wiping, although some stain is made, it is not conspicuous.

表 1 水耕栽培の吸収率 (生根比率)	1/1000~1/10~1/100 水の混合比率
1 段	2/98
2 段	5/95
3 段	10/90
4 段	20/80
5 段	30/70
6 段	40/60
7 段	50/50
8 段	60/40
9 段	70/30

Table 1
[600]

for reasons of sanitation [work environment].

00935-**<Compartitive example 2>** In the 1st-step imprecuring hydroprocessing in Example 1, it is an anionic form fluorosilane emulsion water and oil repellent agent Aquea frame. Concentration of TE-5A is used as solution 10%, And the precessing water and oil repellent agent (Y2) which gave the color like Example 1 was obtained except that using a fluorosilane emulsion water and oil repellent agent Aquea frame. Concentration of TE-5A is used as solution 10%, 00966-**<Compartitive example 3>** Fluorine system water and oil repellent agent Dikko guard who uses toluene as an organic solvent in the 2nd-step imprecuring processing. Although the durable antifouling coat was obtained like Example 1 except having diluted NH₃-10 in the solution 5% by weight spirit further, and having used it in spite of the organic solvent at the time of the 2nd-step imprecuring processing having volatileized and having installed the local exhaust ventilation, the workable was full of the solvent smell and it checked that it was not desirable.

[0003] <Example 4> In the first-step impregnating processing in Example 1, it is an antiof fluororesin emulsion water and oil repellent agent Aquafine, it adds to the 5% of the weight solution of TE-5A. The processing substance (X_4) which gave the antifouling cost of the endurance of this invention like Example 1 was obtained except using together the 30-% of the weight blend liquid of aqueous polyurethane resin (Dainippon Ink & Chemicals, Inc. make and Bon Dior Disk 2250, 40 % of the weight of solid content) as a binder.

[0044] <Comparative example 1> In the first-step impregnating processing in Example 1, an antiof fluororesin water and oil repellent agent is not used. And the processing substance (Y_1) which gave the cost like Example 1 was obtained except having used the caffion form fluororesin emulsion water and oil repellent agent by the 2nd-step impregnating processing.

[0045] <Example 5> In the first-step impregnating processing in Example 1, the 30% solid content by the 2nd-step impregnating processing.

In Example 3-2, a repellent agent applied to the water surface repelled the 1-step impregnating processing solution. In Example 3-3, a repellent agent applied to the water surface repelled the 2-step impregnating processing solution. The repellent agent did not affect the 3-step impregnating processing solution.

Table 3

0 數	彈性堆積量及彈性率 (mN/m)	-
1 數	彈性堆積量及彈性率 31.45	31.45
2 數	33.3-100-A457=65/35床鋪量 29.60	29.60
3 數	33.3-100-A457=65/35床鋪量 27.30	27.30
4 數	33.3-100-A457=65/35床鋪量 26.35	26.35
5 數	33.3-100-A457=65/35床鋪量 24.70	24.70
6 數	33.3-100-A457=65/35床鋪量 23.50	23.50
7 數	33.3-100-A457=65/35床鋪量 21.40	21.40
8 數	33.3-100-A457=65/35床鋪量 19.75	19.75

Table 2

200Z-10

[Translation done.]

{0100} Effect of the invention[This invention uses together anionic form fluororesin emulsion independent of resin solution, and aqueous dispersed resin as the first-step processing, make it easier to a coacal emulsion, and ranks second. The substrate which gave the soil-resistant-finish method making a certain form, and ranks second. The substrate adheire to a substrate as the 2nd-step processing, and making a coat form fluororesin emulsion which gave the soil-resistant-finish method making a certain form, and ranks second. In order that the soil-resistant-finish method of this invention not only can give the performance which was excellent in water and oil repellency, abrasion resistance, washing resistance, etc. to paper or film material, but may not use an organic solvent, it is also one of the features that it is the processing method which considered environment. As a use of the processing substrate which gave the soil-resistant-finish method of this invention, it can apply to various fields, such as garments, general merchandise, a building material, an inferior raw material, a vehicle inferior material, and wrapping, and is not limited in particular, for example.

Patent number	JP2003154307	Publication date	2003-05-27	Inventor(s)	HASIHIGUCHI TSUNENORI; TANAKA KAZUYOSHI
Applicant(s)	B05D6/00; B32B7/30; C08F20/24; C09K3/00; D06M15/27T;	Interdependence	D06M15/27	Classification	DAIHISHI NINK & CHEMICALS
Applicant number	JP20020199857 20020709	Priority number(s)	JP20010229477 20010730; JP2002199857 20020709	Report a data error here	
A problem to solve: To provide a stainproof method by which an outstanding performance such as stainproof base member. Solution: This stainproof method is prepared in two steps: the first step is to form a film by applying an acrylic fluororesin on acrylic fluororesin and the second step is to form a stainproof base member.					Data supplied from the esp@cenet database - Worldwide
Abstract of JP2003154307 A stainproof base member. Staining or washing repellency can be imparted to paper or a fibrous material and a resistance to wear and washing repellency which has outstanding performance such as stainproof base member. Solution: This stainproof method is prepared in two steps: the first step is to form a film by applying the acrylic fluororesin on acrylic fluororesin and the second step is to form a stainproof base member.					apply the acrylic fluororesin in emulsion and thereby, form a stainproof film, or both acidic dispersant and aqueous dispersant resin, to a base material, and the second step is to apply a polycondensation product of an acetoxy group and an acrylic fluororesin group, containing the acetoxy fluororesin and an acrylic fluororesin monomer (b) containing no acrylic fluororesin group, monomer (a) containing an acrylic fluororesin and an acrylic fluororesin monomer (d) containing no acrylic fluororesin, and/or a polycondensation product of a tetrafunctional unsaturated monomer (e).

STAINPROOF METHOD AND STAINPROOF BASE MATERIAL

(19) 日本国特許庁 (JP)

1

18

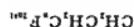
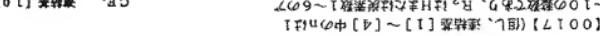
【材料堆放的缺陷】

材料、半成品、工具、模具、设备材料、以及用于施工的工具和用具，如电锯、电钻等，应分类堆放整齐，不得乱堆乱放。

【操作失误】

操作者在操作过程中，由于经验不足或操作不当，造成事故。

(4) 003-154307 (P2003-07)

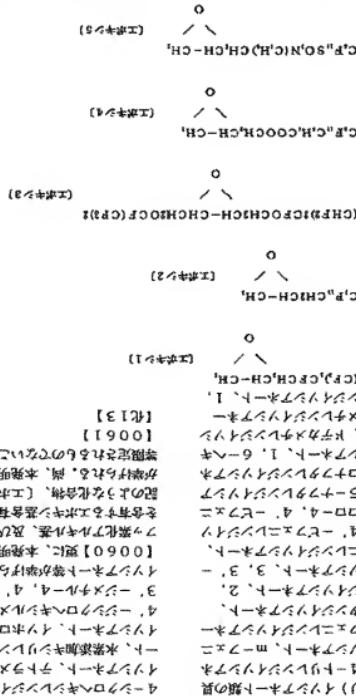


[0025]

勿需付上文字。則文字。

八章如題子曰：「吾從周。」此固非以爲子之初也。

「100万3千件の機器を輸出するにあたっては、日本製の機器が最も多く、それが日本の技術と品質を世界に示す機会となる」と、松井氏は語る。



【0076】本說明書所列加工方法能大大加工基材。

（10074）日本、農林省園芸試験場付属植物研究所の報告書によれば、1980年秋に、福島県郡山市で、アサガオの花が、葉の裏面に、白い粉状の斑点を生じた。この病害は、アサガオの花の開花率を約50%まで落とした。この病害は、アサガオの花の開花率を約50%まで落とした。

《新編中華書局影印本》卷之二、五七、六〇、六一、六二、六三

（10073）本說明書之各項技術資料，均為機器工程公司所製造，並非由本公司所製造。本公司僅為總經銷商，並非製造商。

• 26 •

0.05~0.1~1atm%で測定され、2.5%誤差以内に測定される。

〔007〕本项目的施工方法和施工方案，应能保证施工安全、质量、进度和经济效益。在施工过程中，必须严格遵守国家和地方的有关法律、法规、标准和规范，确保工程质量和安全。在施工过程中，必须严格执行施工组织设计和施工方案，不得擅自变更。在施工过程中，必须加强安全管理，杜绝安全事故的发生。在施工过程中，必须加强质量管理，确保工程质量符合设计要求。在施工过程中，必须加强进度管理，确保工程按期完成。在施工过程中，必须加强成本管理，确保工程经济效果。在施工过程中，必须加强合同管理，确保工程顺利进行。

(0070) 本說明書之第 1 頁題目、及(0)第 2 頁題目
註 1 ~ 30 題量為 30%。

本工程由中建三局一公司承建，于2011年1月26日开工，计划于2013年6月30日竣工。

民辦事務處之大約六七、有辦公室手續之事宜。

（01）本项目为1999年立项的国家“九五”攻关项目，其主要研究内容是：①建立以聚丙烯酰胺为主的水溶性高分子絮凝剂的工业化生产技术；②建立以聚丙烯酰胺为主的水溶性高分子絮凝剂在水处理中的应用技术；③建立以聚丙烯酰胺为主的水溶性高分子絮凝剂在土壤改良中的应用技术。

重量%以上、又が斜率L<±1.0~6.0重量%の範囲で、

2012年1月1日，双方对于本工程的决算金额为人民币

〔10010〕

〔参考用語集〕本規則用語の解説

〔6600〕

